

Title (en)
Process for the production of monodispersed crosslinked polymer pearls/beads

Title (de)
Verfahren zur Herstellung monodispersen vernetzten Perlpolymerisaten

Title (fr)
Procédé pour la production de perles de polymères réticulés monodispersés

Publication
EP 1110982 A1 20010627 (DE)

Application
EP 00126555 A 20001212

Priority
• DE 19962864 A 19991224
• DE 10019144 A 20000418

Abstract (en)
Production of monodisperse crosslinked polymer beads comprises: forming an aqueous suspension of monodisperse droplets of a vinyl aromatic monomer mixture (MM1) with a radical initiator; micro-encapsulating the droplets; polymerizing the droplets; adding a vinyl aromatic monomer mixture (MM2) at a temperature at which the initiator of MM1 is active; and polymerizing the monomers. Production of monodisperse crosslinked polymer beads comprises: (a) forming an aqueous suspension of monodisperse droplets of a monomer mixture (MM1) comprising styrene, divinylbenzene and a radical initiator; (b) micro-encapsulating the droplets; (c) polymerizing the droplets to a conversion of 10-75%; (d) adding a monomer mixture (MM2) comprising styrene and divinylbenzene at a temperature at which the initiator of MM1 is active, so that MM2 penetrates into partially polymerized droplets of MM1; and (e) polymerizing the monomers to completion.

Abstract (de)
Die Erfindung betrifft ein Verfahren zur Herstellung von weitgehend monodispersen vernetzten Perlpolymerisaten als Vorstufen für Ionenaustauscher.

IPC 1-7
C08F 257/02; B01J 39/20; B01J 41/14; C08F 2/18

IPC 8 full level
B01J 39/20 (2006.01); **B01J 41/14** (2006.01); **C08F 2/00** (2006.01); **C08F 2/18** (2006.01); **C08F 212/36** (2006.01); **C08F 257/02** (2006.01)

CPC (source: EP US)
C08F 257/02 (2013.01 - EP US)

Citation (search report)
• [XY] US 5834524 A 19981110 - BLOODWORTH ROBERT [DE], et al
• [DY] US 4623706 A 19861118 - TIMM EDWARD E [US], et al
• [A] US 5068255 A 19911126 - HARRIS WILLIAM I [US]
• [A] EP 0842951 A1 19980520 - BAYER AG [DE]
• [PA] EP 0994124 A2 20000419 - BAYER AG [DE]
• [A] DE 19805248 A1 19990812 - BAYER AG [DE]

Cited by
CN109261124A; CN113801258A

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1110982 A1 20010627; JP 2001206901 A 20010731; MX PA00012167 A 20020806; US 2001009928 A1 20010726; US 6365683 B2 20020402

DOCDB simple family (application)
EP 00126555 A 20001212; JP 2000378831 A 20001213; MX PA00012167 A 20001207; US 73727000 A 20001214